

ANALYTICAL RESULTS

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

Sunoco c/o Stantec
1060 Andrew Drive
Suite 140
West Chester PA 19380

January 22, 2014

Project: Sunoco M.H.(RCRA)

Submittal Date: 01/09/2014

Group Number: 1444939

PO Number: SUNOCO M.H. RCRA

State of Sample Origin: PA

<u>Client Sample Description</u>	<u>Lancaster Labs (LL) #</u>
17A Grab Water Sample	7331885
17B Grab Water Sample	7331886
17C Grab Water Sample	7331887
17D Grab Water Sample	7331888
28A Grab Water Sample	7331889
28B Grab Water Sample	7331890
28C Grab Water Sample	7331891
28D Grab Water Sample	7331892
30A Grab Water Sample	7331893
30B Grab Water Sample	7331894
30C Grab Water Sample	7331895
30D Grab Water Sample	7331896
40A Grab Water Sample	7331897
40B Grab Water Sample	7331898
40C Grab Water Sample	7331899
40D Grab Water Sample	7331900
86A Grab Water Sample	7331901
86B Grab Water Sample	7331902
86C Grab Water Sample	7331903
86D Grab Water Sample	7331904
17 Grab Water Sample	7331905
28 Grab Water Sample	7331906
30 Grab Water Sample	7331907
40 Grab Water Sample	7331908
86 Grab Water Sample	7331909
Trip Blank Water Sample	7331910

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC
COPY TO

Sunoco c/o Stantec

Attn: Jennifer Menges

Respectfully Submitted,

A handwritten signature in dark ink, appearing to read "Amek Carter". The signature is fluid and cursive, with the first name "Amek" and last name "Carter" clearly distinguishable.

Amek Carter
Specialist

(717) 556-7252

Sample Description: 17A Grab Water Sample
Sunoco M.H. (RCRA)

LL Sample # WW 7331885
LL Group # 1444939
Account # 11183

Project Name: Sunoco M.H. (RCRA)

Collected: 01/08/2014 11:27 by CC

Sunoco c/o Stantec

1060 Andrew Drive

Submitted: 01/09/2014 17:40

Suite 140

Reported: 01/22/2014 11:59

West Chester PA 19380

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Wet Chemistry					
00273	Total Organic Carbon	SM 5310 C-2000 n.a.	mg/l 12.4	mg/l 0.50	1

General Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/14

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
00273	Total Organic Carbon	SM 5310 C-2000	1	14014049502A	01/14/2014 03:54	James S Mathiot	1

Sample Description: 17B Grab Water Sample
Sunoco M.H. (RCRA)

LL Sample # WW 7331886
LL Group # 1444939
Account # 11183

Project Name: Sunoco M.H. (RCRA)

Collected: 01/08/2014 11:35 by CC

Sunoco c/o Stantec

1060 Andrew Drive

Submitted: 01/09/2014 17:40

Suite 140

Reported: 01/22/2014 11:59

West Chester PA 19380

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
00273	Wet Chemistry Total Organic Carbon	SM 5310 C-2000 n.a.	mg/l 12.5	mg/l 0.50	1

General Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/14

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
00273	Total Organic Carbon	SM 5310 C-2000	1	14014049502A	01/14/2014 04:08	James S Mathiot	1

Sample Description: 17C Grab Water Sample
Sunoco M.H. (RCRA)

LL Sample # WW 7331887
LL Group # 1444939
Account # 11183

Project Name: Sunoco M.H. (RCRA)

Collected: 01/08/2014 11:43 by CC

Sunoco c/o Stantec

1060 Andrew Drive

Submitted: 01/09/2014 17:40

Suite 140

Reported: 01/22/2014 11:59

West Chester PA 19380

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
00273	Wet Chemistry Total Organic Carbon	SM 5310 C-2000 n.a.	mg/l 12.5	mg/l 0.50	1

General Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/14

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
00273	Total Organic Carbon	SM 5310 C-2000	1	14014049502A	01/14/2014 04:22	James S Mathiot	1

Sample Description: 17D Grab Water Sample
Sunoco M.H. (RCRA)

LL Sample # WW 7331888
LL Group # 1444939
Account # 11183

Project Name: Sunoco M.H. (RCRA)

Collected: 01/08/2014 11:51 by CC

Sunoco c/o Stantec

1060 Andrew Drive

Submitted: 01/09/2014 17:40

Suite 140

Reported: 01/22/2014 11:59

West Chester PA 19380

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
00273	Wet Chemistry Total Organic Carbon	SM 5310 C-2000 n.a.	mg/l 12.6	mg/l 0.50	1

General Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/14

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
00273	Total Organic Carbon	SM 5310 C-2000	1	14014049502A	01/14/2014 04:35	James S Mathiot	1

Sample Description: 28A Grab Water Sample
Sunoco M.H. (RCRA)

LL Sample # WW 7331889
LL Group # 1444939
Account # 11183

Project Name: Sunoco M.H. (RCRA)

Collected: 01/08/2014 08:24 by CC

Sunoco c/o Stantec

1060 Andrew Drive

Submitted: 01/09/2014 17:40

Suite 140

Reported: 01/22/2014 11:59

West Chester PA 19380

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
00273	Wet Chemistry Total Organic Carbon	SM 5310 C-2000 n.a.	mg/l 2.2	mg/l 0.50	1

General Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/14

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
00273	Total Organic Carbon	SM 5310 C-2000	1	14014049502A	01/14/2014 04:49	James S Mathiot	1

Sample Description: 28B Grab Water Sample
Sunoco M.H. (RCRA)

LL Sample # WW 7331890
LL Group # 1444939
Account # 11183

Project Name: Sunoco M.H. (RCRA)

Collected: 01/08/2014 08:27 by CC

Sunoco c/o Stantec

1060 Andrew Drive

Submitted: 01/09/2014 17:40

Suite 140

Reported: 01/22/2014 11:59

West Chester PA 19380

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
00273	Wet Chemistry Total Organic Carbon	SM 5310 C-2000 n.a.	mg/l 2.1	mg/l 0.50	1

General Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/14

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
00273	Total Organic Carbon	SM 5310 C-2000	1	14014049502A	01/14/2014 05:03	James S Mathiot	1

Sample Description: 28C Grab Water Sample
Sunoco M.H. (RCRA)

LL Sample # WW 7331891
LL Group # 1444939
Account # 11183

Project Name: Sunoco M.H. (RCRA)

Collected: 01/08/2014 08:30 by CC

Sunoco c/o Stantec

1060 Andrew Drive

Submitted: 01/09/2014 17:40

Suite 140

Reported: 01/22/2014 11:59

West Chester PA 19380

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
00273	Wet Chemistry Total Organic Carbon	SM 5310 C-2000 n.a.	mg/l 2.3	mg/l 0.50	1

General Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/14

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
00273	Total Organic Carbon	SM 5310 C-2000	1	14014049502A	01/14/2014 05:16	James S Mathiot	1

Sample Description: 28D Grab Water Sample
Sunoco M.H. (RCRA)

LL Sample # WW 7331892
LL Group # 1444939
Account # 11183

Project Name: Sunoco M.H. (RCRA)

Collected: 01/08/2014 08:33 by CC

Sunoco c/o Stantec

1060 Andrew Drive

Submitted: 01/09/2014 17:40

Suite 140

Reported: 01/22/2014 11:59

West Chester PA 19380

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
00273	Wet Chemistry Total Organic Carbon	SM 5310 C-2000 n.a.	mg/l 2.4	mg/l 0.50	1

General Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/14

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
00273	Total Organic Carbon	SM 5310 C-2000	1	14014049502A	01/14/2014 05:30	James S Mathiot	1

Sample Description: 30A Grab Water Sample
Sunoco M.H. (RCRA)

LL Sample # WW 7331893
LL Group # 1444939
Account # 11183

Project Name: Sunoco M.H. (RCRA)

Collected: 01/08/2014 09:01 by CC

Sunoco c/o Stantec

1060 Andrew Drive

Submitted: 01/09/2014 17:40

Suite 140

Reported: 01/22/2014 11:59

West Chester PA 19380

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
00273	Wet Chemistry Total Organic Carbon	SM 5310 C-2000 n.a.	mg/l 5.4	mg/l 0.50	1

General Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/14

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
00273	Total Organic Carbon	SM 5310 C-2000	1	14014049502A	01/14/2014 05:59	James S Mathiot	1

Sample Description: 30B Grab Water Sample
Sunoco M.H. (RCRA)

LL Sample # WW 7331894
LL Group # 1444939
Account # 11183

Project Name: Sunoco M.H. (RCRA)

Collected: 01/08/2014 09:03 by CC

Sunoco c/o Stantec

1060 Andrew Drive

Submitted: 01/09/2014 17:40

Suite 140

Reported: 01/22/2014 11:59

West Chester PA 19380

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
00273	Wet Chemistry Total Organic Carbon	SM 5310 C-2000 n.a.	mg/l 5.2	mg/l 0.50	1

General Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/14

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
00273	Total Organic Carbon	SM 5310 C-2000	1	14014049502A	01/14/2014 06:13	James S Mathiot	1

Sample Description: 30C Grab Water Sample
Sunoco M.H. (RCRA)

LL Sample # WW 7331895
LL Group # 1444939
Account # 11183

Project Name: Sunoco M.H. (RCRA)

Collected: 01/08/2014 09:05 by CC

Sunoco c/o Stantec

1060 Andrew Drive

Submitted: 01/09/2014 17:40

Suite 140

Reported: 01/22/2014 11:59

West Chester PA 19380

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
00273	Wet Chemistry Total Organic Carbon	SM 5310 C-2000 n.a.	mg/l 5.8	mg/l 0.50	1

General Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/14

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
00273	Total Organic Carbon	SM 5310 C-2000	1	14014049502B	01/14/2014 06:54	James S Mathiot	1

Sample Description: 30D Grab Water Sample
Sunoco M.H. (RCRA)

LL Sample # WW 7331896
LL Group # 1444939
Account # 11183

Project Name: Sunoco M.H. (RCRA)

Collected: 01/08/2014 09:07 by CC

Sunoco c/o Stantec

1060 Andrew Drive

Submitted: 01/09/2014 17:40

Suite 140

Reported: 01/22/2014 11:59

West Chester PA 19380

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
00273	Wet Chemistry Total Organic Carbon	SM 5310 C-2000 n.a.	mg/l 6.1	mg/l 0.50	1

General Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/14

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
00273	Total Organic Carbon	SM 5310 C-2000	1	14014049502B	01/14/2014 07:07	James S Mathiot	1

Sample Description: 40A Grab Water Sample
Sunoco M.H. (RCRA)

LL Sample # WW 7331897
LL Group # 1444939
Account # 11183

Project Name: Sunoco M.H. (RCRA)

Collected: 01/08/2014 07:25 by CC

Sunoco c/o Stantec

1060 Andrew Drive

Submitted: 01/09/2014 17:40

Suite 140

Reported: 01/22/2014 11:59

West Chester PA 19380

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
00273	Wet Chemistry Total Organic Carbon	SM 5310 C-2000 n.a.	mg/l 37.3	mg/l 0.50	1

General Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/14

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
00273	Total Organic Carbon	SM 5310 C-2000	1	14014049502B	01/14/2014 07:21	James S Mathiot	1

Sample Description: 40B Grab Water Sample
Sunoco M.H. (RCRA)

LL Sample # WW 7331898
LL Group # 1444939
Account # 11183

Project Name: Sunoco M.H. (RCRA)

Collected: 01/08/2014 07:28 by CC

Sunoco c/o Stantec

1060 Andrew Drive

Submitted: 01/09/2014 17:40

Suite 140

Reported: 01/22/2014 11:59

West Chester PA 19380

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
00273	Wet Chemistry Total Organic Carbon	SM 5310 C-2000 n.a.	mg/l 39.0	mg/l 0.50	1

General Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/14

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
00273	Total Organic Carbon	SM 5310 C-2000	1	14014049502B	01/14/2014 07:35	James S Mathiot	1

Sample Description: 40C Grab Water Sample
Sunoco M.H. (RCRA)

LL Sample # WW 7331899
LL Group # 1444939
Account # 11183

Project Name: Sunoco M.H. (RCRA)

Collected: 01/08/2014 07:31 by CC

Sunoco c/o Stantec

1060 Andrew Drive

Submitted: 01/09/2014 17:40

Suite 140

Reported: 01/22/2014 11:59

West Chester PA 19380

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
00273	Wet Chemistry Total Organic Carbon	SM 5310 C-2000 n.a.	mg/l 40.2	mg/l 0.50	1

General Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/14

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
00273	Total Organic Carbon	SM 5310 C-2000	1	14014049502B	01/14/2014 07:48	James S Mathiot	1

Sample Description: 40D Grab Water Sample
Sunoco M.H. (RCRA)

LL Sample # WW 7331900
LL Group # 1444939
Account # 11183

Project Name: Sunoco M.H. (RCRA)

Collected: 01/08/2014 07:34 by CC

Sunoco c/o Stantec

1060 Andrew Drive

Submitted: 01/09/2014 17:40

Suite 140

Reported: 01/22/2014 11:59

West Chester PA 19380

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
00273	Wet Chemistry Total Organic Carbon	SM 5310 C-2000 n.a.	mg/l 39.0	mg/l 0.50	1

General Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/14

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
00273	Total Organic Carbon	SM 5310 C-2000	1	14014049502B	01/14/2014 08:02	James S Mathiot	1

Sample Description: 86A Grab Water Sample
Sunoco M.H. (RCRA)

LL Sample # WW 7331901
LL Group # 1444939
Account # 11183

Project Name: Sunoco M.H. (RCRA)

Collected: 01/08/2014 09:57 by CC

Sunoco c/o Stantec

Submitted: 01/09/2014 17:40

1060 Andrew Drive

Reported: 01/22/2014 11:59

Suite 140

West Chester PA 19380

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
00273	Wet Chemistry Total Organic Carbon	SM 5310 C-2000 n.a.	mg/l 9.3	mg/l 0.50	1

General Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/14

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
00273	Total Organic Carbon	SM 5310 C-2000	1	14014049502B	01/14/2014 08:31	James S Mathiot	1

Sample Description: 86B Grab Water Sample
Sunoco M.H. (RCRA)

LL Sample # WW 7331902
LL Group # 1444939
Account # 11183

Project Name: Sunoco M.H. (RCRA)

Collected: 01/08/2014 10:08 by CC

Sunoco c/o Stantec

1060 Andrew Drive

Submitted: 01/09/2014 17:40

Suite 140

Reported: 01/22/2014 11:59

West Chester PA 19380

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
00273	Wet Chemistry Total Organic Carbon	SM 5310 C-2000 n.a.	mg/l 8.9	mg/l 0.50	1

General Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/14

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
00273	Total Organic Carbon	SM 5310 C-2000	1	14014049502B	01/14/2014 08:45	James S Mathiot	1

Sample Description: 86C Grab Water Sample
Sunoco M.H. (RCRA)

LL Sample # WW 7331903
LL Group # 1444939
Account # 11183

Project Name: Sunoco M.H. (RCRA)

Collected: 01/08/2014 10:19 by CC

Sunoco c/o Stantec

1060 Andrew Drive

Submitted: 01/09/2014 17:40

Suite 140

Reported: 01/22/2014 11:59

West Chester PA 19380

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
00273	Wet Chemistry Total Organic Carbon	SM 5310 C-2000 n.a.	mg/l 9.0	mg/l 0.50	1

General Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/14

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
00273	Total Organic Carbon	SM 5310 C-2000	1	14014049502B	01/14/2014 08:59	James S Mathiot	1

Sample Description: 86D Grab Water Sample
Sunoco M.H. (RCRA)

LL Sample # WW 7331904
LL Group # 1444939
Account # 11183

Project Name: Sunoco M.H. (RCRA)

Collected: 01/08/2014 10:30 by CC

Sunoco c/o Stantec

1060 Andrew Drive

Submitted: 01/09/2014 17:40

Suite 140

Reported: 01/22/2014 11:59

West Chester PA 19380

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
00273	Wet Chemistry Total Organic Carbon	SM 5310 C-2000 n.a.	mg/l 8.7	mg/l 0.50	1

General Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/14

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
00273	Total Organic Carbon	SM 5310 C-2000	1	14014049502B	01/14/2014 09:12	James S Mathiot	1

Sample Description: 17 Grab Water Sample
Sunoco M.H. (RCRA)

LL Sample # WW 7331905
LL Group # 1444939
Account # 11183

Project Name: Sunoco M.H. (RCRA)

Collected: 01/08/2014 12:07 by CC

Sunoco c/o Stantec
1060 Andrew Drive
Suite 140
West Chester PA 19380

Submitted: 01/09/2014 17:40

Reported: 01/22/2014 11:59

---17

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles EPA 624					
10371	Benzene	71-43-2	N.D.	0.9	1
10371	Ethylbenzene	100-41-4	N.D.	0.8	1
10371	Toluene	108-88-3	N.D.	0.8	1
10371	Xylene (total)	1330-20-7	N.D.	0.9	1
GC/MS Semivolatiles EPA 625					
10334	Acenaphthene	83-32-9	N.D.	0.3	1
10334	Anthracene	120-12-7	N.D.	0.2	1
10334	Benzo(a)anthracene	56-55-3	N.D.	0.2	1
10334	Benzo(a)pyrene	50-32-8	N.D.	0.3	1
10334	Di-n-butylphthalate	84-74-2	N.D.	0.5	1
10334	Chrysene	218-01-9	N.D.	0.2	1
10334	bis(2-Ethylhexyl)phthalate	117-81-7	2 J	1	1
10334	Fluorene	86-73-7	N.D.	0.3	1
10334	Naphthalene	91-20-3	N.D.	0.2	1
10334	Phenanthrene	85-01-8	N.D.	0.2	1
10334	Phenol	108-95-2	N.D.	0.4	1
Metals SW-846 6010B					
07051	Chromium	7440-47-3	0.0239	0.0016	1
07055	Lead	7439-92-1	0.0102 J	0.0047	1
Wet Chemistry EPA 335.4					
00237	Total Cyanide (water)	57-12-5	N.D.	0.0050	1
EPA 1664A					
00612	SGT-HEM (TPH)	n.a.	N.D.	1.4	1

General Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/14

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10371	BTEX by 624	EPA 624	1	M140131AA	01/13/2014 22:20	Andrea E Lando	1
10334	SVOCs 625	EPA 625	1	14010WAC625	01/13/2014 11:46	Holly Berry	1
08108	625 Water Extraction	EPA 625	1	14010WAC625	01/10/2014 15:30	Seth A Farrier	1
07051	Chromium	SW-846 6010B	1	140101848004	01/13/2014 22:36	Katlin N Cataldi	1
07055	Lead	SW-846 6010B	1	140101848004	01/13/2014 22:36	Katlin N Cataldi	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	140101848004	01/13/2014 09:43	James L Mertz	1
00237	Total Cyanide (water)	EPA 335.4	1	14010102101A	01/10/2014 13:27	Joseph E McKenzie	1

Sample Description: 17 Grab Water Sample
Sunoco M.H. (RCRA)

LL Sample # WW 7331905
LL Group # 1444939
Account # 11183

Project Name: Sunoco M.H. (RCRA)

Collected: 01/08/2014 12:07 by CC

Sunoco c/o Stantec

1060 Andrew Drive

Submitted: 01/09/2014 17:40

Suite 140

Reported: 01/22/2014 11:59

West Chester PA 19380

---17

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
00492	Cyanide Water Distillation	EPA 335.4	1	14010102101A	01/10/2014 09:50	Nancy J Shoop	1
00612	SGT-HEM (TPH)	EPA 1664A	1	14015807801A	01/15/2014 08:22	Yolunder Y Bunch	1

Sample Description: 28 Grab Water Sample
Sunoco M.H. (RCRA)

LL Sample # WW 7331906
LL Group # 1444939
Account # 11183

Project Name: Sunoco M.H. (RCRA)

Collected: 01/08/2014 08:45 by CC

Sunoco c/o Stantec

Submitted: 01/09/2014 17:40

1060 Andrew Drive

Reported: 01/22/2014 11:59

Suite 140

West Chester PA 19380

---28

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles EPA 624					
10371	Benzene	71-43-2	N.D.	0.9	1
10371	Ethylbenzene	100-41-4	N.D.	0.8	1
10371	Toluene	108-88-3	N.D.	0.8	1
10371	Xylene (total)	1330-20-7	N.D.	0.9	1
GC/MS Semivolatiles EPA 625					
10334	Acenaphthene	83-32-9	N.D.	0.3	1
10334	Anthracene	120-12-7	N.D.	0.2	1
10334	Benzo(a)anthracene	56-55-3	N.D.	0.2	1
10334	Benzo(a)pyrene	50-32-8	N.D.	0.3	1
10334	Di-n-butylphthalate	84-74-2	N.D.	0.5	1
10334	Chrysene	218-01-9	N.D.	0.2	1
10334	bis(2-Ethylhexyl)phthalate	117-81-7	4 J	1	1
10334	Fluorene	86-73-7	N.D.	0.3	1
10334	Naphthalene	91-20-3	0.2 J	0.2	1
10334	Phenanthrene	85-01-8	N.D.	0.2	1
10334	Phenol	108-95-2	0.5 J	0.4	1
Metals SW-846 6010B					
07051	Chromium	7440-47-3	0.511	0.0016	1
07055	Lead	7439-92-1	0.0144 J	0.0047	1
Wet Chemistry EPA 335.4					
00237	Total Cyanide (water)	57-12-5	N.D.	0.0050	1
EPA 1664A					
00612	SGT-HEM (TPH)	n.a.	N.D.	1.4	1

General Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/14

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10371	BTEX by 624	EPA 624	1	M140101AA	01/10/2014 20:34	Linda C Pape	1
10334	SVOCs 625	EPA 625	1	14010WAC625	01/13/2014 12:11	Holly Berry	1
08108	625 Water Extraction	EPA 625	1	14010WAC625	01/10/2014 15:30	Seth A Farrier	1
07051	Chromium	SW-846 6010B	1	140101848004	01/13/2014 21:58	Katlin N Cataldi	1
07055	Lead	SW-846 6010B	1	140101848004	01/13/2014 21:58	Katlin N Cataldi	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	140101848004	01/13/2014 09:43	James L Mertz	1
00237	Total Cyanide (water)	EPA 335.4	1	14010102101A	01/10/2014 13:31	Joseph E McKenzie	1

Sample Description: 28 Grab Water Sample
Sunoco M.H. (RCRA)

LL Sample # WW 7331906
LL Group # 1444939
Account # 11183

Project Name: Sunoco M.H. (RCRA)

Collected: 01/08/2014 08:45 by CC

Sunoco c/o Stantec

Submitted: 01/09/2014 17:40

1060 Andrew Drive

Reported: 01/22/2014 11:59

Suite 140

West Chester PA 19380

---28

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
00492	Cyanide Water Distillation	EPA 335.4	1	14010102101A	01/10/2014 09:50	Nancy J Shoop	1
00612	SGT-HEM (TPH)	EPA 1664A	1	14015807801A	01/15/2014 08:22	Yolunder Y Bunch	1

Sample Description: 30 Grab Water Sample
Sunoco M.H. (RCRA)

LL Sample # WW 7331907
LL Group # 1444939
Account # 11183

Project Name: Sunoco M.H. (RCRA)

Collected: 01/08/2014 09:22 by CC

Sunoco c/o Stantec

Submitted: 01/09/2014 17:40

1060 Andrew Drive

Reported: 01/22/2014 11:59

Suite 140

West Chester PA 19380

---30

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles EPA 624					
10371	Benzene	71-43-2	2 J	0.9	1
10371	Ethylbenzene	100-41-4	N.D.	0.8	1
10371	Toluene	108-88-3	N.D.	0.8	1
10371	Xylene (total)	1330-20-7	N.D.	0.9	1
GC/MS Semivolatiles EPA 625					
10334	Acenaphthene	83-32-9	N.D.	0.3	1
10334	Anthracene	120-12-7	N.D.	0.2	1
10334	Benzo(a)anthracene	56-55-3	N.D.	0.2	1
10334	Benzo(a)pyrene	50-32-8	N.D.	0.3	1
10334	Di-n-butylphthalate	84-74-2	N.D.	0.5	1
10334	Chrysene	218-01-9	N.D.	0.2	1
10334	bis(2-Ethylhexyl)phthalate	117-81-7	N.D.	1	1
10334	Fluorene	86-73-7	N.D.	0.3	1
10334	Naphthalene	91-20-3	1 J	0.2	1
10334	Phenanthrene	85-01-8	N.D.	0.2	1
10334	Phenol	108-95-2	N.D.	0.4	1
Metals SW-846 6010B					
07051	Chromium	7440-47-3	0.259	0.0016	1
07055	Lead	7439-92-1	0.0211	0.0047	1
Wet Chemistry EPA 335.4					
00237	Total Cyanide (water)	57-12-5	N.D.	0.0050	1
EPA 1664A					
00612	SGT-HEM (TPH)	n.a.	N.D.	1.4	1

General Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/14

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10371	BTEX by 624	EPA 624	1	M140101AA	01/10/2014 20:59	Linda C Pape	1
10334	SVOCs 625	EPA 625	1	14010WAC625	01/13/2014 12:35	Holly Berry	1
08108	625 Water Extraction	EPA 625	1	14010WAC625	01/10/2014 15:30	Seth A Farrier	1
07051	Chromium	SW-846 6010B	1	140101848004	01/13/2014 22:02	Katlin N Cataldi	1
07055	Lead	SW-846 6010B	1	140101848004	01/13/2014 22:02	Katlin N Cataldi	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	140101848004	01/13/2014 09:43	James L Mertz	1
00237	Total Cyanide (water)	EPA 335.4	1	14010102101A	01/10/2014 13:32	Joseph E McKenzie	1

Sample Description: 30 Grab Water Sample
Sunoco M.H. (RCRA)

LL Sample # WW 7331907
LL Group # 1444939
Account # 11183

Project Name: Sunoco M.H. (RCRA)

Collected: 01/08/2014 09:22 by CC

Sunoco c/o Stantec

1060 Andrew Drive

Submitted: 01/09/2014 17:40

Suite 140

Reported: 01/22/2014 11:59

West Chester PA 19380

---30

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
00492	Cyanide Water Distillation	EPA 335.4	1	14010102101A	01/10/2014 09:50	Nancy J Shoop	1
00612	SGT-HEM (TPH)	EPA 1664A	1	14015807801A	01/15/2014 08:22	Yolunder Y Bunch	1

Sample Description: 40 Grab Water Sample
Sunoco M.H. (RCRA)

LL Sample # WW 7331908
LL Group # 1444939
Account # 11183

Project Name: Sunoco M.H. (RCRA)

Collected: 01/08/2014 13:03 by CC

Sunoco c/o Stantec
1060 Andrew Drive
Suite 140
West Chester PA 19380

Submitted: 01/09/2014 17:40

Reported: 01/22/2014 11:59

---40

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles EPA 624					
10371	Benzene	71-43-2	N.D.	0.9 ug/l	1
10371	Ethylbenzene	100-41-4	N.D.	0.8	1
10371	Toluene	108-88-3	N.D.	0.8	1
10371	Xylene (total)	1330-20-7	N.D.	0.9	1
GC/MS Semivolatiles EPA 625					
10334	Acenaphthene	83-32-9	N.D.	3	10
10334	Anthracene	120-12-7	N.D.	2	10
10334	Benzo(a)anthracene	56-55-3	N.D.	2	10
10334	Benzo(a)pyrene	50-32-8	N.D.	3	10
10334	Di-n-butylphthalate	84-74-2	N.D.	5	10
10334	Chrysene	218-01-9	N.D.	2	10
10334	bis(2-Ethylhexyl)phthalate	117-81-7	N.D.	10	10
10334	Fluorene	86-73-7	N.D.	3	10
10334	Naphthalene	91-20-3	N.D.	2	10
10334	Phenanthrene	85-01-8	N.D.	2	10
10334	Phenol	108-95-2	5 J	4	10
Reporting limits were raised due to interference from the sample matrix.					
Metals SW-846 6010B					
07051	Chromium	7440-47-3	0.0079 J	0.0016 mg/l	1
07055	Lead	7439-92-1	0.0168	0.0047	1
Wet Chemistry EPA 335.4					
00237	Total Cyanide (water)	57-12-5	N.D.	0.0050 mg/l	1
EPA 1664A					
00612	SGT-HEM (TPH)	n.a.	13.4	1.4 mg/l	1

General Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/14

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10371	BTEX by 624	EPA 624	1	M140101AA	01/10/2014 21:24	Linda C Pape	1
10334	SVOCs 625	EPA 625	1	14010WAC625	01/13/2014 17:02	Holly Berry	10
08108	625 Water Extraction	EPA 625	1	14010WAC625	01/10/2014 15:30	Seth A Farrier	1
07051	Chromium	SW-846 6010B	1	140101848004	01/13/2014 22:06	Katlin N Cataldi	1
07055	Lead	SW-846 6010B	1	140101848004	01/13/2014 22:06	Katlin N Cataldi	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	140101848004	01/13/2014 09:43	James L Mertz	1
00237	Total Cyanide (water)	EPA 335.4	1	14010102101A	01/10/2014 13:33	Joseph E McKenzie	1

Sample Description: 40 Grab Water Sample
Sunoco M.H. (RCRA)

LL Sample # WW 7331908
LL Group # 1444939
Account # 11183

Project Name: Sunoco M.H. (RCRA)

Collected: 01/08/2014 13:03 by CC

Sunoco c/o Stantec

1060 Andrew Drive

Submitted: 01/09/2014 17:40

Suite 140

Reported: 01/22/2014 11:59

West Chester PA 19380

---40

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
00492	Cyanide Water Distillation	EPA 335.4	1	14010102101A	01/10/2014 09:50	Nancy J Shoop	1
00612	SGT-HEM (TPH)	EPA 1664A	1	14015807801A	01/15/2014 08:22	Yolunder Y Bunch	1

Sample Description: 86 Grab Water Sample
Sunoco M.H. (RCRA)

LL Sample # WW 7331909
LL Group # 1444939
Account # 11183

Project Name: Sunoco M.H. (RCRA)

Collected: 01/08/2014 10:46 by CC

Sunoco c/o Stantec
1060 Andrew Drive
Suite 140
West Chester PA 19380

Submitted: 01/09/2014 17:40

Reported: 01/22/2014 11:59

---84

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles EPA 624					
10371	Benzene	71-43-2	N.D.	0.9	1
10371	Ethylbenzene	100-41-4	N.D.	0.8	1
10371	Toluene	108-88-3	N.D.	0.8	1
10371	Xylene (total)	1330-20-7	N.D.	0.9	1
GC/MS Semivolatiles EPA 625					
10334	Acenaphthene	83-32-9	N.D.	0.3	1
10334	Anthracene	120-12-7	N.D.	0.2	1
10334	Benzo(a)anthracene	56-55-3	N.D.	0.2	1
10334	Benzo(a)pyrene	50-32-8	N.D.	0.3	1
10334	Di-n-butylphthalate	84-74-2	N.D.	0.5	1
10334	Chrysene	218-01-9	N.D.	0.2	1
10334	bis(2-Ethylhexyl)phthalate	117-81-7	1 J	1	1
10334	Fluorene	86-73-7	N.D.	0.3	1
10334	Naphthalene	91-20-3	N.D.	0.2	1
10334	Phenanthrene	85-01-8	N.D.	0.2	1
10334	Phenol	108-95-2	1 J	0.4	1
Metals SW-846 6010B					
07051	Chromium	7440-47-3	0.0048 J	0.0016	1
07055	Lead	7439-92-1	0.0093 J	0.0047	1
Wet Chemistry EPA 335.4					
00237	Total Cyanide (water)	57-12-5	N.D.	0.0050	1
EPA 1664A					
00612	SGT-HEM (TPH)	n.a.	N.D.	1.4	1

General Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/14

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10371	BTEX by 624	EPA 624	1	M140131AA	01/13/2014 22:45	Andrea E Lando	1
10334	SVOCs 625	EPA 625	1	14010WAC625	01/13/2014 13:00	Holly Berry	1
08108	625 Water Extraction	EPA 625	1	14010WAC625	01/10/2014 15:30	Seth A Farrier	1
07051	Chromium	SW-846 6010B	1	140101848004	01/13/2014 22:09	Katlin N Cataldi	1
07055	Lead	SW-846 6010B	1	140101848004	01/13/2014 22:09	Katlin N Cataldi	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	140101848004	01/13/2014 09:43	James L Mertz	1
00237	Total Cyanide (water)	EPA 335.4	1	14016102101A	01/16/2014 17:54	Venia B McFadden	1

Sample Description: 86 Grab Water Sample
Sunoco M.H. (RCRA)

LL Sample # WW 7331909
LL Group # 1444939
Account # 11183

Project Name: Sunoco M.H. (RCRA)

Collected: 01/08/2014 10:46 by CC

Sunoco c/o Stantec

1060 Andrew Drive

Submitted: 01/09/2014 17:40

Suite 140

Reported: 01/22/2014 11:59

West Chester PA 19380

---84

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
00492	Cyanide Water Distillation	EPA 335.4	1	14016102101A	01/16/2014 09:50	Nancy J Shoop	1
00612	SGT-HEM (TPH)	EPA 1664A	1	14015807801A	01/15/2014 08:22	Yolunder Y Bunch	1

Sample Description: Trip Blank Water Sample
Sunoco M.H. (RCRA)

LL Sample # WW 7331910
LL Group # 1444939
Account # 11183

Project Name: Sunoco M.H. (RCRA)

Collected: 01/08/2014

Sunoco c/o Stantec

Submitted: 01/09/2014 17:40

1060 Andrew Drive

Reported: 01/22/2014 11:59

Suite 140

West Chester PA 19380

---T1

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS	Volatiles	EPA 624	ug/l	ug/l	
10371	Benzene	71-43-2	N.D.	0.9	1
10371	Ethylbenzene	100-41-4	N.D.	0.8	1
10371	Toluene	108-88-3	N.D.	0.8	1
10371	Xylene (total)	1330-20-7	N.D.	0.9	1

General Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/14

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10371	BTEX by 624	EPA 624	1	M140101AA	01/10/2014 22:15	Linda C Pape	1

Quality Control SummaryClient Name: Sunoco c/o Stantec
Reported: 01/22/14 at 11:59 AM

Group Number: 1444939

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: M140101AA	Sample number(s): 7331906-7331908, 7331910							
Benzene	N.D.	0.9	ug/l	94		80-121		
Ethylbenzene	N.D.	0.8	ug/l	97		80-120		
Toluene	N.D.	0.8	ug/l	97		80-120		
Xylene (total)	N.D.	0.9	ug/l	101		80-120		
Batch number: M140131AA	Sample number(s): 7331905, 7331909							
Benzene	N.D.	0.9	ug/l	105		80-121		
Ethylbenzene	N.D.	0.8	ug/l	105		80-120		
Toluene	N.D.	0.8	ug/l	106		80-120		
Xylene (total)	N.D.	0.9	ug/l	108		80-120		
Batch number: 14010WAC625	Sample number(s): 7331905-7331909							
Acenaphthene	N.D.	0.3	ug/l	94	94	83-117	0	30
Anthracene	N.D.	0.2	ug/l	97	97	75-116	0	30
Benzo(a)anthracene	N.D.	0.2	ug/l	98	98	76-117	0	30
Benzo(a)pyrene	N.D.	0.3	ug/l	97	96	69-143	1	30
Di-n-butylphthalate	N.D.	0.5	ug/l	100	99	82-122	1	30
Chrysene	N.D.	0.2	ug/l	96	95	81-118	1	30
bis(2-Ethylhexyl)phthalate	N.D.	1.	ug/l	99	98	74-118	1	30
Fluorene	N.D.	0.3	ug/l	96	97	80-116	0	30
Naphthalene	N.D.	0.2	ug/l	102	103	80-120	1	30
Phenanthrene	N.D.	0.2	ug/l	96	96	80-119	0	30
Phenol	N.D.	0.4	ug/l	48	48	30-70	1	30
Batch number: 140101848004	Sample number(s): 7331905-7331909							
Chromium	N.D.	0.0016	mg/l	100		90-110		
Lead	N.D.	0.0047	mg/l	105		88-110		
Batch number: 14010102101A	Sample number(s): 7331905-7331908							
Total Cyanide (water)	N.D.	0.0050	mg/l	104		90-110		
Batch number: 14014049502A	Sample number(s): 7331885-7331894							
Total Organic Carbon	N.D.	0.50	mg/l	104		91-113		
Batch number: 14014049502B	Sample number(s): 7331895-7331904							
Total Organic Carbon	N.D.	0.50	mg/l	104		91-113		
Batch number: 14016102101A	Sample number(s): 7331909							
Total Cyanide (water)	N.D.	0.0050	mg/l	91		90-110		
Batch number: 14015807801A	Sample number(s): 7331905-7331909							
SGT-HEM (TPH)	N.D.	1.4	mg/l	69	64	64-114	8	26

*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

Quality Control SummaryClient Name: Sunoco c/o Stantec
Reported: 01/22/14 at 11:59 AM

Group Number: 1444939

Sample Matrix Quality ControlUnspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

<u>Analysis Name</u>	<u>MS %REC</u>	<u>MSD %REC</u>	<u>MS/MSD Limits</u>	<u>RPD</u>	<u>RPD MAX</u>	<u>BKG Conc</u>	<u>DUP Conc</u>	<u>DUP RPD</u>	<u>Dup RPD Max</u>
Batch number: M140101AA	Sample number(s): 7331906-7331908,7331910 UNSPK: P330672								
Benzene	100	100	83-132	0	30				
Ethylbenzene	107	107	82-124	0	30				
Toluene	106	106	84-123	1	30				
Xylene (total)	109	109	79-130	0	30				
Batch number: M140131AA	Sample number(s): 7331905,7331909 UNSPK: P332722								
Benzene	109	110	83-132	1	30				
Ethylbenzene	108	112	82-124	4	30				
Toluene	114	110	84-123	4	30				
Xylene (total)	112	114	79-130	1	30				
Batch number: 140101848004	Sample number(s): 7331905-7331909 UNSPK: P329727 BKG: P329727								
Chromium	100	100	76-120	0	20	N.D.	N.D.	0 (1)	20
Lead	97	96	75-125	1	20	0.0104 J	N.D.	200* (1)	20
Batch number: 14010102101A	Sample number(s): 7331905-7331908 UNSPK: 7331905 BKG: 7331905								
Total Cyanide (water)	98		90-110			N.D.	N.D.	0 (1)	20
Batch number: 14014049502A	Sample number(s): 7331885-7331894 UNSPK: 7331894 BKG: 7331894								
Total Organic Carbon	101		63-142			5.2	5.3	3	4
Batch number: 14014049502B	Sample number(s): 7331895-7331904 UNSPK: 7331904 BKG: 7331904								
Total Organic Carbon	98		63-142			8.7	8.4	2	4
Batch number: 14016102101A	Sample number(s): 7331909 UNSPK: P335723 BKG: P335723								
Total Cyanide (water)	91		90-110			N.D.	N.D.	0 (1)	20
Batch number: 14015807801A	Sample number(s): 7331905-7331909 UNSPK: P335332								
SGT-HEM (TPH)	57*		64-132						

Surrogate Quality ControlSurrogate recoveries which are outside of the QC window are confirmed
unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: EPA 624 water

Batch number: M140101AA

	1,2-Dichloroethane-d4	Fluorobenzene	4-Bromofluorobenzene
7331906	84	98	87
7331907	86	94	94
7331908	83	97	90
7331910	84	96	87
Blank	82	98	88

*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
 (2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: Sunoco c/o Stantec
Reported: 01/22/14 at 11:59 AM

Group Number: 1444939

Surrogate Quality Control

LCS	82	101	96
MS	85	103	96
MSD	87	102	98

Limits:	76-114	80-120	86-115
---------	--------	--------	--------

Analysis Name: EPA 624 water

Batch number: M140131AA

1,2-Dichloroethane-d4	Fluorobenzene	4-Bromofluorobenzene
-----------------------	---------------	----------------------

7331905	105	105	99
7331909	101	97	97
Blank	96	95	94
LCS	103	102	101
MS	99	101	98
MSD	107	105	99

Limits:	76-114	80-120	86-115
---------	--------	--------	--------

Analysis Name: SVOCs Method 625

Batch number: 14010WAC625

Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14	Phenol-d6	2-Fluorophenol	2,4,6-Tribromophenol
-----------------	------------------	---------------	-----------	----------------	----------------------

7331905	99	100	93	47	74	100
7331906	99	99	103	46	73	102
7331907	98	100	99	48	73	104
7331908	87	94	109	39	58	99
7331909	95	94	100	55	81	99
Blank	100	98	109	43	72	100
LCS	98	97	105	50	74	100
LCSD	99	98	104	48	73	100

Limits:	59-126	69-121	42-126	10-84	10-114	36-140
---------	--------	--------	--------	-------	--------	--------

*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.



For Eurofins Lancaster Laboratories Environmental use only
Acct. # 11183 Group # 1444939 Sample # 7331885-910
Instructions on reverse side correspond with circled numbers.

COC # 344105

Eurofins Lancaster Laboratories Environmental, LLC • 2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300

The white copy should accompany samples to Eurofins Lancaster Food Stores Environmental. The yellow copy should be retained by the client.

7044 0713



**Lancaster Laboratories
Environmental**

For Eurofins Lancaster Laboratories Environmental use only
Acct. # 11183 Group # 1444939 Sample # 7331885-910
Instructions on reverse side correspond with circled numbers.

COC # 344106

Client Information						Matrix		Analysis Requested								For Lab Use Only			
Client: Stantec				Acct. #:		<div>Sediment <input type="checkbox"/></div> <div>Potable Ground <input type="checkbox"/></div> <div>Water NPDES <input type="checkbox"/></div> <div>Surface <input type="checkbox"/></div> <div>Other: <input type="checkbox"/></div>		Preservation Codes								FSC: _____			
Project Name/#: Sunoco Marcus Hook RCRA				PWSID #:												SCR#: 150375			
Project Manager: Stephanie Andrews				P.O. #:												Preservation Codes H=HCl T=Thiosulfate N=HNO ₃ B=NaOH S=H ₂ SO ₄ O=Other			
Sampler: C. Correll				Quote #:												Remarks			
Name of state where samples were collected: PA						Total # of Containers													
Sample Identification						Collected		Grab Composite		Soil		Water		Other:		Total # of Containers			
						Date Time													
MW30C						1-8-14 0905		X				X				3 X X			
MW30D						0907		X				X				3 X X			
MW40A						0725		X				X				3 X X			
MW40B						0728		X				X				3 X X			
MW40C						0731		X				X				3 X X			
MW40D						0734		X				X				3 X X			
MW86A						0957		X				X				3 X X			
MW86B						1008		X				X				3 X X			
MW86C						1019		X				X				3 X X			
MW86D						1030		X				X				3 X X			
Turnaround Time (TAT) Requested (please circle)						Relinquished by		Date		Time		Received by		Date		Time			
(Standard) Rush						Bottle Storage													
(Rush TAT is subject to laboratory approval and surcharge.)						Lynn Lewis		1-9-14		1138		Mark Anderson		1-9-14		1138			
Date results are needed:						Relinquished by		Date		Time		Received by		Date		Time			
						Rick Anderson		1-9-14		1740									
E-mail address: Stephanie.andrews@stantec.com						Relinquished by		Date		Time		Received by		Date		Time			
Data Package Options (circle if required)						Relinquished by		Date		Time		Received by		Date		Time			
Type I (Validation/non-CLP) Type VI (Raw Data Only)																			
Type III (Reduced non-CLP) TX TRRP-13																			
Type IV (CLP SOW) MA MCP CT RCP																			
EDD Required? Yes No						Relinquished by Commercial Carrier:		UPS FedEx Other		Temperature upon receipt 1.2-3.0°C									
If yes, format: _____																			
Site-Specific QC (MS/MSD/Dup)? Yes No																			
(If yes, indicate QC sample and submit triplicate sample volume.)																			



Acct. # 1183

For Eurofins Lancaster Laboratories Environmental use only
Group # 1444939 Sample # 7331885-910
Instructions on reverse side correspond with circled numbers.

COC # 344104

1 Client Information										4 Matrix			5 Analysis Requested										For Lab Use Only																						
Client: <u>Stantec</u>					Acct. #:					<input checked="" type="checkbox"/> Sediment <input type="checkbox"/> Potable <input type="checkbox"/> Ground <input type="checkbox"/> Water <input type="checkbox"/> NPDES <input type="checkbox"/> Surface <input type="checkbox"/> Other:			Preservation Codes										FSC: _____																						
Project Name/ #: <u>Sunoco Marcus Hook RCRA</u>					PWSID #:								H O N B/L H										SCR#: <u>150375</u>																						
Project Manager: <u>Stephanie Andrews</u>					P.O. #:								EPA 624 Water EPA 625 Water Chromium + Lead SW-846 GLOB										Preservation Codes H=HCl T=Thiosulfate N=HNO ₃ B=NaOH S=H ₂ SO ₄ O=Other																						
Sampler: <u>C. Correll</u>					Quote #:								Total (Yankee Green) 3354 SGT-HEM (TPH) 16644										6 Remarks																						
Name of state where samples were collected: <u>PA</u>										3			Total # of Containers										624: Benzene, Toluene, Ethyl Benzene + Total Xylenes 625: Acenaphthene, Anthracene, Benzo(a) anthracene, Benzo(a) pyrene, Bis(2-ethyl/hexyl) phthalate, Chrysene Di-n-butyl phthalate, Fluorene, Naphthalene, Phenanthrene & Phenol																						
2 Sample Identification					Collected					Grab			Composite			Soil			Water			Other:																							
					Date					Time																																			
MW17					1-8-14					1207					X						X						9			X			X			X			X						
MW28										0845					X						X						9			X			X			X			X						
MW30										0922					X						X						9			X			X			X			X						
MW40										1303					X						X						9			X			X			X			X						
MW86										1046					X						X						9			X			X			X			X						
Trip Blank																								2			X																		
7 Turnaround Time (TAT) Requested (please circle)										Relinquished by										Date		Time		Received by										Date		Time									
(Standard)										Bottle Storage										1-6-14		0745		Mick Deninger										1-6-14		0745									
(Rush TAT is subject to laboratory approval and surcharge.)										Mick Deninger										1-6-14		1125		Lory Correll										1-6-14		1125									
Date results are needed:										Lory Correll										1-9-14		1138		Mick Deninger										1-9-14		1138									
E-mail address: <u>Stephanie.andrews@stantec.com</u>										Mick Deninger										1-9-14		1740																							
8 Data Package Options (circle if required)										Relinquished by										Date		Time		Received by										Date		Time									
Type I (Validation/non-CLP)										Type VI (Raw Data Only)																																			
Type III (Reduced non-CLP)										TX TRRP-13																																			
Type IV (CLP SOW)										MA MCP CT RCP																																			
										EDD Required? Yes No										Relinquished by Commercial Carrier:																									
										If yes, format:										UPS FedEx Other																									
										Site-Specific QC (MS/MSD/Dup)? Yes No										Temperature upon receipt										1.2-3.0°C															
										(If yes, indicate QC sample and submit triplicate sample volume.)																																			

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	BMQL	Below Minimum Quantitation Level
N.D.	none detected	MPN	Most Probable Number
TNTC	Too Numerous To Count	CP Units	cobalt-chloroplatinate units
IU	International Units	NTU	nephelometric turbidity units
umhos/cm	micromhos/cm	ng	nanogram(s)
C	degrees Celsius	F	degrees Fahrenheit
meq	milliequivalents	lb.	pound(s)
g	gram(s)	kg	kilogram(s)
µg	microgram(s)	mg	milligram(s)
mL	milliliter(s)	L	liter(s)
m3	cubic meter(s)	µL	microliter(s)
		pg/L	picogram/liter
<	less than - The number following the sign is the <u>limit of quantitation</u> , the smallest amount of analyte which can be reliably determined using this specific test.		
>	greater than		
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.		
ppb	parts per billion		
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.		

Data Qualifiers:

C – result confirmed by reanalysis.

J - estimated value – The result is \geq the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ).

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers		Inorganic Qualifiers	
A	TIC is a possible aldol-condensation product	B	Value is $<$ CRDL, but \geq IDL
B	Analyte was also detected in the blank	E	Estimated due to interference
C	Pesticide result confirmed by GC/MS	M	Duplicate injection precision not met
D	Compound quantitated on a diluted sample	N	Spike sample not within control limits
E	Concentration exceeds the calibration range of the instrument	S	Method of standard additions (MSA) used for calculation
N	Presumptive evidence of a compound (TICs only)	U	Compound was not detected
P	Concentration difference between primary and confirmation columns $>25\%$	W	Post digestion spike out of control limits
U	Compound was not detected	*	Duplicate analysis not within control limits
X,Y,Z	Defined in case narrative	+	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR part 136 Table II as “analyze immediately” are not performed within 15 minutes.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL, LLC BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL AND (B) WHETHER EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.